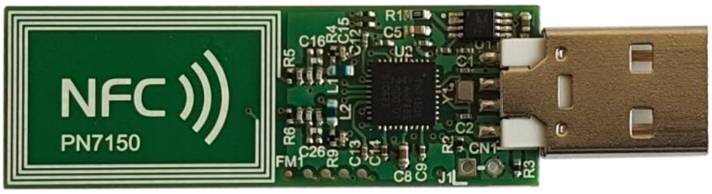
NFC NXP-NCI USB dongle Windows quick start guide

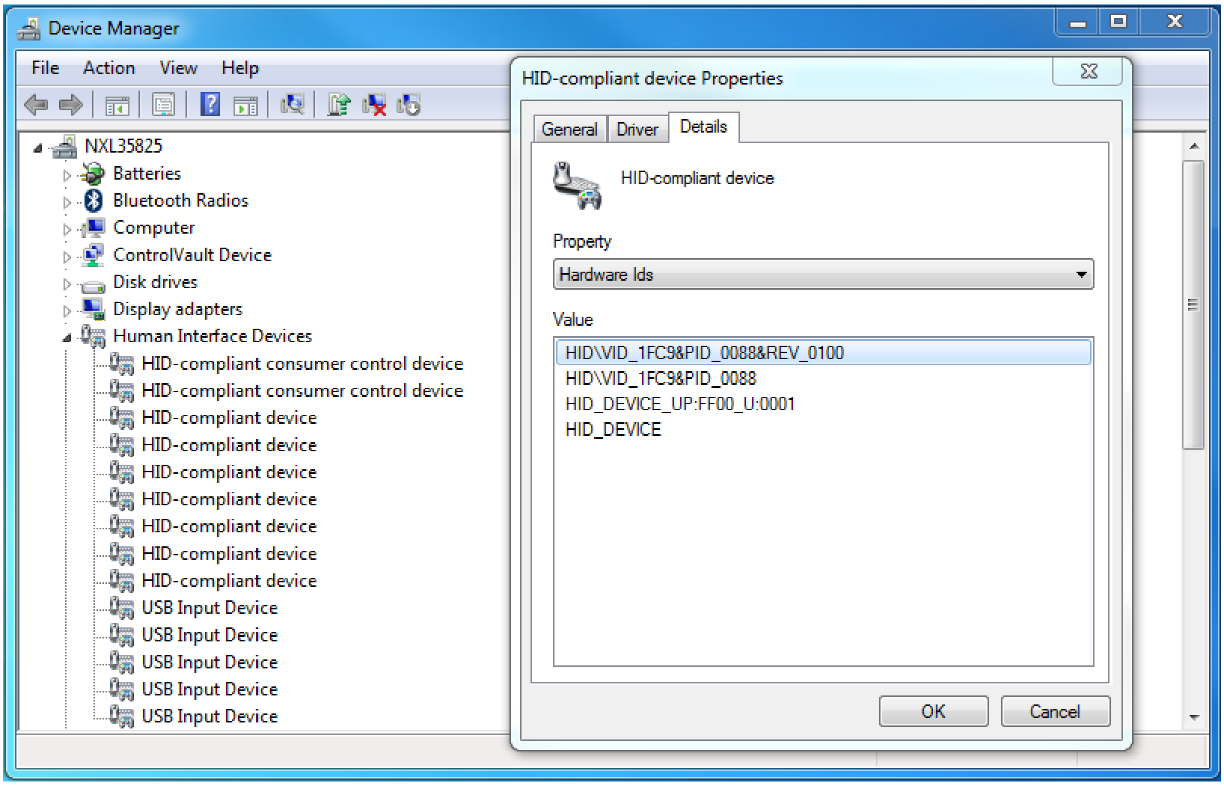


General comments

- The NFC functionality is insured thanks to NXP PN7150 NFC Controller
- USB interfaced is provided via HID standard thanks to NXP LPC11u24 MCU
- The dongle is supported under Windows based devices through generic HID support of this operating system
- Example is provided to demonstrate full P2P functionality (reader, P2P and card emulation) of the NFC dongle

Quick start

- The dongle is detected as “HID-compliant devices” in the Device Manager:



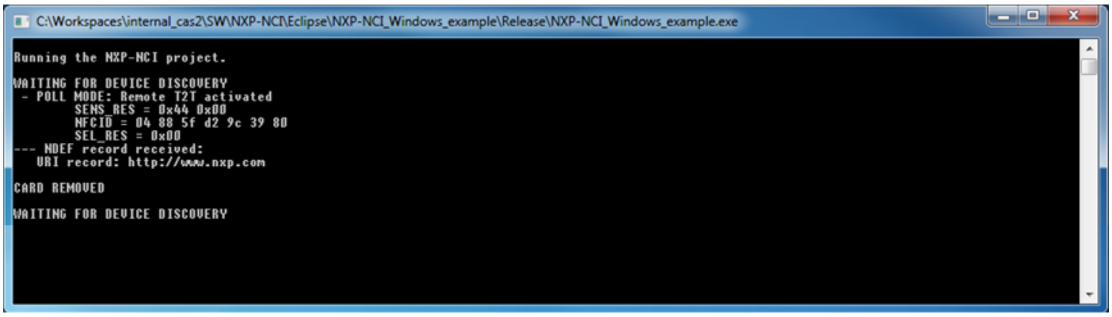
NXL35825
Batteries
Bluetooth Radios
Computer
ControlVault Device
Disk drives
Display adapters
Human Interface Devices
HID-compliant consumer control device
HID-compliant consumer control device
HID-compliant device
HID-compliant device
HID-compliant device
HID-compliant device
HID-compliant device
HID-compliant device
HID-compliant device
USB Input Device
USB Input Device
USB Input Device
USB Input Device
USB Input Device

HID-compliant device

Property
Hardware Ids

Value
HID\VID_1FC9&PID_0088&REV_0100
HID\VID_1FC9&PID_0088
HID_DEVICE_UP:FF00_U:0001
HID_DEVICE

- Running provided “NXP-NCI_Windows_example.exe” executable, a windows console gets opened. NFC discovery is then started, tapping a card generates such display:



C:\Workspaces\internal_cas2\SW\NXP-NCI\Eclipse\NXP-NCI_Windows_example\Release\NXP-NCI_Windows_example.exe

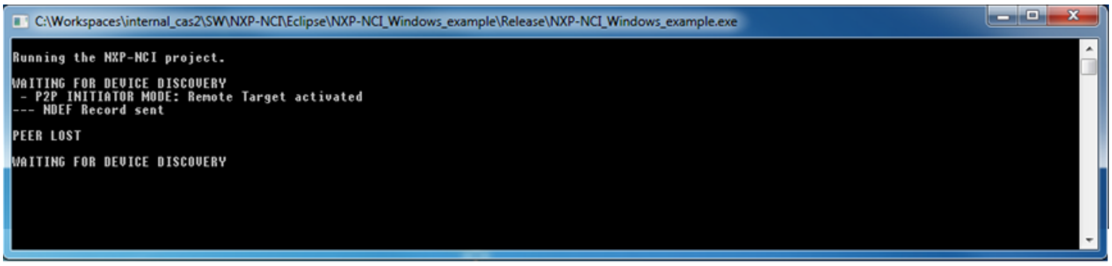
```
Running the NXP-NCI project.

WAITING FOR DEVICE DISCOVERY
 - POLL MODE: Remote T2T activated
        SENS_RES = 0x44 0x00
        NFCID = 04 88 5f d2 9c 39 80
        SEL_RES = 0x00
--- NDEF record received:
   URI record: http://www.nxp.com

CARD REMOVED

WAITING FOR DEVICE DISCOVERY
```

- While tapping a NFC phone triggers the reception of NDEF text record on the phone and the console displays:



C:\Workspaces\internal_cas2\SW\NXP-NCI\Eclipse\NXP-NCI_Windows_example\Release\NXP-NCI_Windows_example.exe

```
Running the NXP-NCI project.

WAITING FOR DEVICE DISCOVERY
 - P2P INITIATOR MODE: Remote Target activated
--- NDEF Record sent

PEER LOST

WAITING FOR DEVICE DISCOVERY
```

Building and debugging the example

- Example source code is delivered in the form of Eclipse C/C++ project
- The Example project requires MinGW toolchain
- The project must be imported into Eclipse C/C++ IDE:
  - File->Import…->Existing projects into Workspace->Select archive file
  - Select the NXP-NCI_example.zip package
  - Tick the “NXP-NCI_Windows_example” project and click Finish button
- Build the project in “Debug” mode
- Then start “Debug As -> Local C/C++ Application”
- Note that the Debug configuration traces all NCI exchanges in the console (enabled according to NCI_DEBUG definition inside GCC C Compiler Preprocessor defined symbols of the project properties)